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U.S. DOT Dockets, Room PL-401
U.S. Department of Transportation
400 Seventh Street, SW
Washington, DC 20590

Notice of NHTSA Activities under the United Nations Economic Commission for Europe 1998 Global Agreement, 68 FR 5333 *et seq.*, February 3, 2003

Advocates for Highway and Auto Safety (Advocates) is pleased to file these comments in strong support of the initiative proposed by the National Highway Traffic Safety Administration (NHTSA) to develop a global technical regulation governing the design and performance of door locks, latches, and retention components under the 1998 United Nations Economic Commission for Europe (ECE) Global Agreement. Advocates agrees with NHTSA that reform of both the European and U.S. standards for door lock, latch, and hinge safety performance is long overdue and that these vehicle safety components need major improvements. Advocates commends NHTSA for this action because it will help improve occupant safety not only for U.S. marketplace vehicles, but also for European vehicles as well. We note that, although most motor vehicles currently manufactured for sale in European countries have door locks, some vehicles produced in some European countries do not because ECE 11 has no lock requirements that secure either front or rear vehicle doors by disabling door handles and latches. In addition, ECE 11, unlike the current U.S. standard, has no requirements for back door locks, latches, or hinges, although there are numerous vehicles with back doors and tailgates manufactured and sold throughout Europe.

It is clear that improving door latches, locks, hinges, and other retention components requires major improvements to the current Federal Motor Vehicle Safety Standard (FMVSS) No. 206 because door openings are a major contributor to both complete and partial occupant ejection in crashes, especially in rollover crashes where both side and roof impact forces allow current primary and secondary latching systems on U.S. vehicles to fail. Partial and complete occupant ejection is a leading cause of

fatalities for all passenger motor vehicles and is the leading cause of death in fatal sport utility vehicle (SUV) rollover crashes. 68 FR 5333, 5334.[1]

Advocates wants to emphasize here that improved door latches, locks, and hinges must be addressed by a systems engineering approach so that door retention components not only have fail-safe performance in severe real-world front, side impact, and rollover crashes to prevent ejection, but also can withstand such severe crash loads and yet permit side and rear doors and back doors/tailgates to be opened both by occupants in the vehicle interior as well as by emergency response personnel in order to provide rapid attention to the medical needs of vehicle occupants who suffer crash trauma. Accordingly, we strongly endorse the agency's proposed rule of 1998, dealing with the performance of advanced air bags, that doors may not open during crash tests and that, without tools, at least one door for each row of seats must still be able to be opened.[2] 63

[1] The figures provided by NHTSA for partial and complete ejection fatalities and serious injuries in the instant notice are aggregate numbers encompassing morbidity for occupants in all types of crashes.

[2] The preamble text of this proposal reads as follows:

> NHTSA is also proposing to include, for all crash tests specified by Standard No. 208, certain vehicle integrity requirements. These requirements would specify that vehicle doors may not open during the crash test. For many years the agency has monitored whether doors open during 30 mph frontal barrier crash tests. In the agency's experience, doors remain closed in these crash tests. Since vehicles already can and do comply with this requirement, this proposal would establish this norm as a minimum level of safety. This requirement would support the agency goal of mitigating the fatalities and serious injuries attributable to complete and partial ejection.
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> This proposal would also specify that, after crash testing, vehicles having a roof of rigid construction (i.e., vehicles other than convertibles), must meet the following requirements. It must be possible, without the use of tools, to open at least one door, if there is one, per each row of seats. Further, where there is no such door, it must be possible to move the seats or tilt their backrests as necessary to allow the evacuation of all the occupants. This post crash door opening check has always been a demonstration part of the agency's compliance test procedure. The purpose is to demonstrate the potential for entrapment. After each test, the technicians approach the vehicle and try to open the vehicle doors. In the majority of these full frontal crash tests conducted by the agency, the technicians are able to open the vehicle doors without the use of tools. This process is recorded on the test films. The agency is proposing to add this door opening requirement to the regulation. NHTSA does not have any information indicating that there would [be: *sic*] anything other than a minimal cost impact associated with this proposed requirement, but requests comments on this issue.

Id. At 49972.

Unfortunately, NHTSA during the following year decided to delete these door frontal crash performance requirements when it issued a supplemental notice of proposed rulemaking for advanced air bags:

> We also proposed in the NPRM to include, for all crash tests specified by the standard, certain vehicle integrity requirements. The proposal specified that vehicle doors may not open during the crash test and that, after the crash test, it must be possible for technicians to open the doors and move the seats as necessary to allow evacuation of all occupants.
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> Several commenters raised concerns about these proposed requirements, including the ones relating to objectivity. After considering these comments, we have decided to drop these requirements from the SNPRM.

FR 49958, 49972, 49988 (September 18, 1998). However, Advocates stresses here that the agency should extend this crash test condition beyond frontal crash testing to govern all crash modes currently subject to compliance testing, as well as to its New Car Assessment Program (NCAP), including both upper and lower interior compliance tests, the prospective NCAP test for on-road, untripped rollover propensity, and any prospective dynamic test adopted by NHTSA for improving roof strength in rollover crashes.[3] Simply put, NHTSA has an obligation to propose and adopt a domestic standard that ensures that all side and rear doors and rear tailgates do not open in severe crashes of all types and that at least some doors can be opened, after any type of crash, without mechanical assistance both from the interior as well as from the exterior of the vehicle to ensure the evacuation of occupants. Advocates supports confirmation of such safety performance primarily through actual crash testing, although specific component performance can also be confirmed through certain laboratory tests.

Respectfully submitted,
ORIGINAL SIGNED
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> While we believe it is important for doors to remain closed during crashes, and for occupants to be extricated from a vehicle after a crash, we believe that significant additional development of the proposed test procedures would be necessary for a final rule. Moreover, we believe this subject is sufficiently distinct from advanced air bags so as to best be considered in other contexts, particularly with the need for us to issue a final rule on advanced air bags by March 1, 2000.

64 FR 60556, 60583 (November 5, 1999).

The instant notice on a globalized technical regulation provides NHTSA with a renewed opportunity to ensure that doors and tailgates remain closed not only in frontal crashes, but also in side impact and rollover crashes, and that they additionally can be opened both from the inside and from the outside of the vehicle to effect the rapid evacuation of occupants.

[3] NHTSA appears to recognize that its effort to improve FMVSS No. 206 must be comprehensive by addressing all types of crashes and employing systems engineering:

> The current requirements only test individual latch components without regard to how those components interact with each other, with other portions of the door, or with the directions of force loading conditions occurring in real world crashes. Door openings are frequently caused by a combination of longitudinal and lateral forces during the crash, which can subject the latch system to compressive longitudinal and tensile lateral forces. These forces often result in structural failures of the latch system as well as other non-latch systems such as hinge strike supports, door frame and door sheet metal. Hence, it would be beneficial to consider developing full system requirements. In addition, current requirements have no test procedure for evaluating the safety of sliding doors. Consideration of such requirements would be valuable.

68 FR 5335.